Environmental Public Health Tracking Nuts and Bolts

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Stakeholder Input on Environmental Public Health Tracking at CDC

Historical Perspective

- CDC/CSTE/NEHA Environmental Public Health Surveillance Workshops, 1996
- CDC/CSTE Environmental Public Health Indicators, 1999-2001
- NCEH/ATSDR Tracking Network Workgroups, 2001-2002

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

CDC's National Environmental Public Health Tracking Program initiated in 2002

- **Congressional funding for "*development and implementation of a nationwide environmental health tracking network and capacity development in environmental health at State and local health Departments*"**

CDC's National Environmental Public Health Tracking Program

Mission & Goals

To provide information from a nation-wide network of integrated environmental monitoring and public health data systems so that all sectors may take action to prevent and control environmentally related health effects.

Goal #1: ***Build a Sustainable, National Environmental Public Health Tracking Network.***

Goal #2: ***Increase Environmental Public Health Tracking Capacity***

Goal #3: ***Disseminate Credible Information***

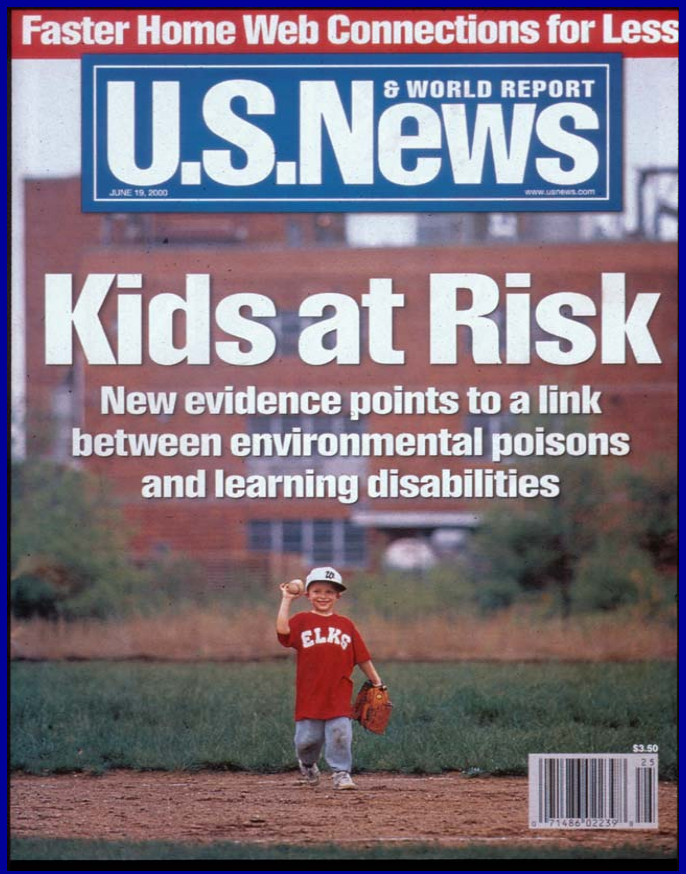
Goal #4: ***Advance Environmental Public Health Science and Research***

Goal #5: ***Bridge the Gap Between Public Health and the Environment***

CDC

Program Focus

- Chronic diseases and other health effects with possible environmental causes
- Chemicals, physical agents, biomechanical stressors, biological toxins



CDC

Environmental Public Health Tracking

Hazard

Exposure

Health Effect

Data

Ongoing Evaluation

COLLECTION → INTEGRATION → ANALYSIS → INTERPRETATION

Tracking Network

Dissemination

Assessment • Research • Intervention • Policy

Stakeholders*

Prevention

Improved Public Health

Ongoing Evaluation

*Stakeholders Include	
Federal Agencies	Business and Industry
State and Local Agencies	Policy Makers
Academia	Media
Health Care System	Public
Non-Governmental Organizations	

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLE

CDC
SAFER • HEALTHIER • PEOPLE

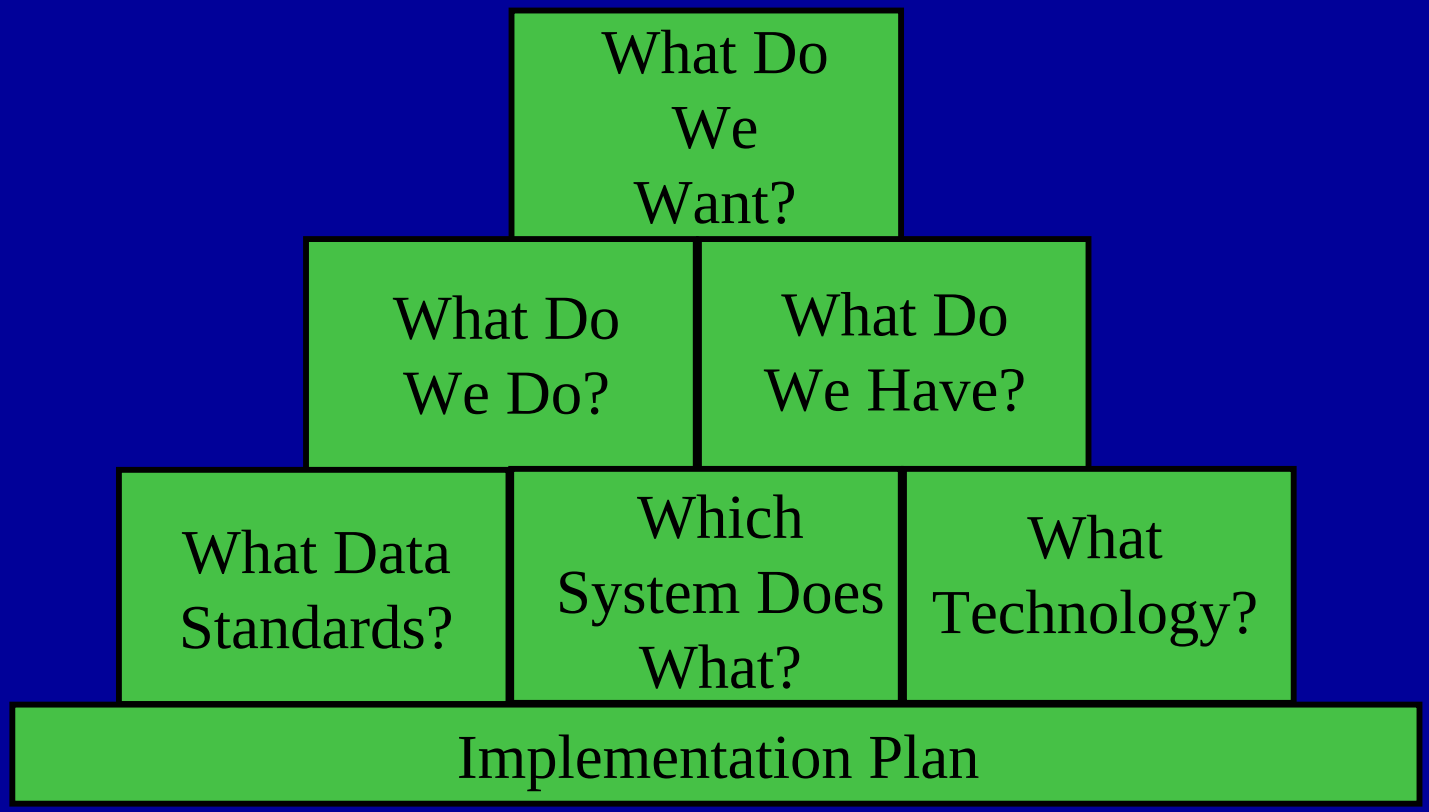
Characteristics of an Ideal EPHT Network
(adapted from Hertz-Picciotto, AJPH, 1996)

- High-quality, timely mortality and morbidity data with high resolution geographic coordinates
- A wide range of information on exposures based on biomonitoring, personal monitors, or exposure modeling
- Relevant, high-quality, timely emissions data and monitoring data for air, water, soil, and food – all based on temporally and spatially appropriate sampling schedules

Characteristics of an Ideal EPHT Network
(adapted from Hertz-Picciotto, AJPH, 1996)

- Updated population data for denominators to calculate rates with adjustment for migration and socio-demographic factors
- Ability to link geographically and in some situations individually
- Fine enough resolution to enable evaluation of effects from localized environmental exposures in small areas

Working Through IT Network Planning Process to Move to Implementation



"Environmental Public Health Tracking and You"

Benefits

- Better data access, timeliness, quality
- Ability to analyze and link data
  - Interoperability
  - Tools
- Increase ability to identify population groups at risk
- Increase knowledge

Challenges

- ➔ Must protect privacy; possible changes in data collection, reporting, and quality control practices
- ➔ Must increase workforce capacity; must build the science to know what and how to link; small numbers issues – statistics can only do so much
- ➔ Intervention not always available
- ➔ Cannot address all information needs; may raise new issues that need to be addressed; balance between privacy issues and right to know

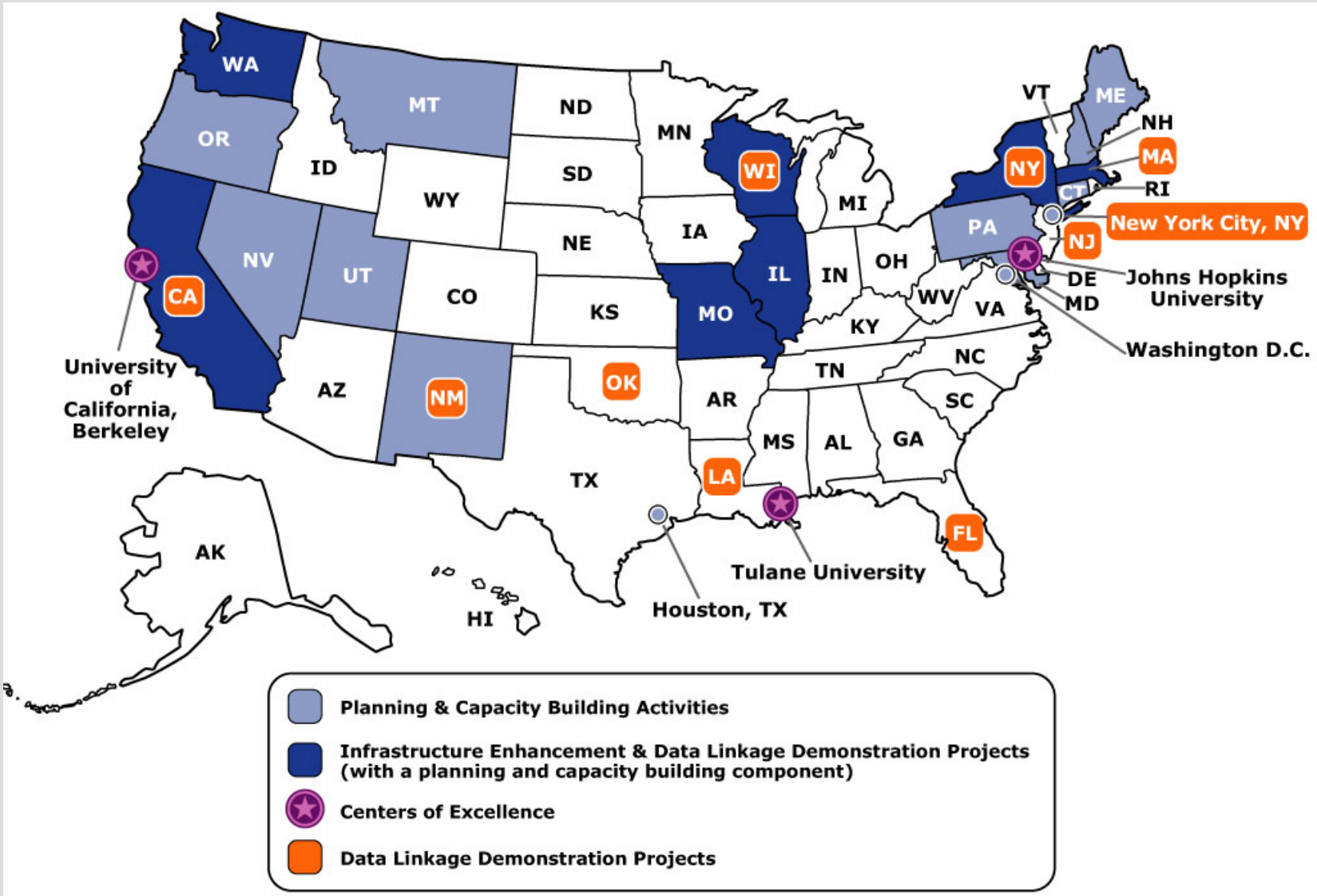
CDC

Environmental Public Health Tracking Program Components

Partnerships Developed

- State and local health departments
- Academic Centers of Excellence
- National public health and environmental health professional organizations
- Advocacy groups
- Environmental Protection Agency
- National Aeronautics and Space Administration

The National Environmental Public Health Tracking Program - 2004



Health Effects, Exposures, Hazards Being Addressed by Various State/Local Partners

Health Effects

- Asthma
- Poisoning – heavy metal; CO; pesticides
- Cancer
- Birth Defects
- Other adverse reproductive outcome such as low birth wt, preterm birth
- Developmental disabilities
- Other chronic respiratory disease
- Multiple Sclerosis
- Cardiovascular Disease
- Systemic Lupus Erythematosus
- Amyotrophic lateral sclerosis

Exposures/Hazards

- PCBs
- Heavy metals
- Pesticides
- Environmental tobacco smoke
- Radionuclides
- Asbestos
- Other drinking water contaminants such as trihalomethanes, PCE, TCE,
- Outdoor air contaminants such as particulate mater, ozone, CO and air toxics
- Indoor air contaminants such as mold, carbon monoxide

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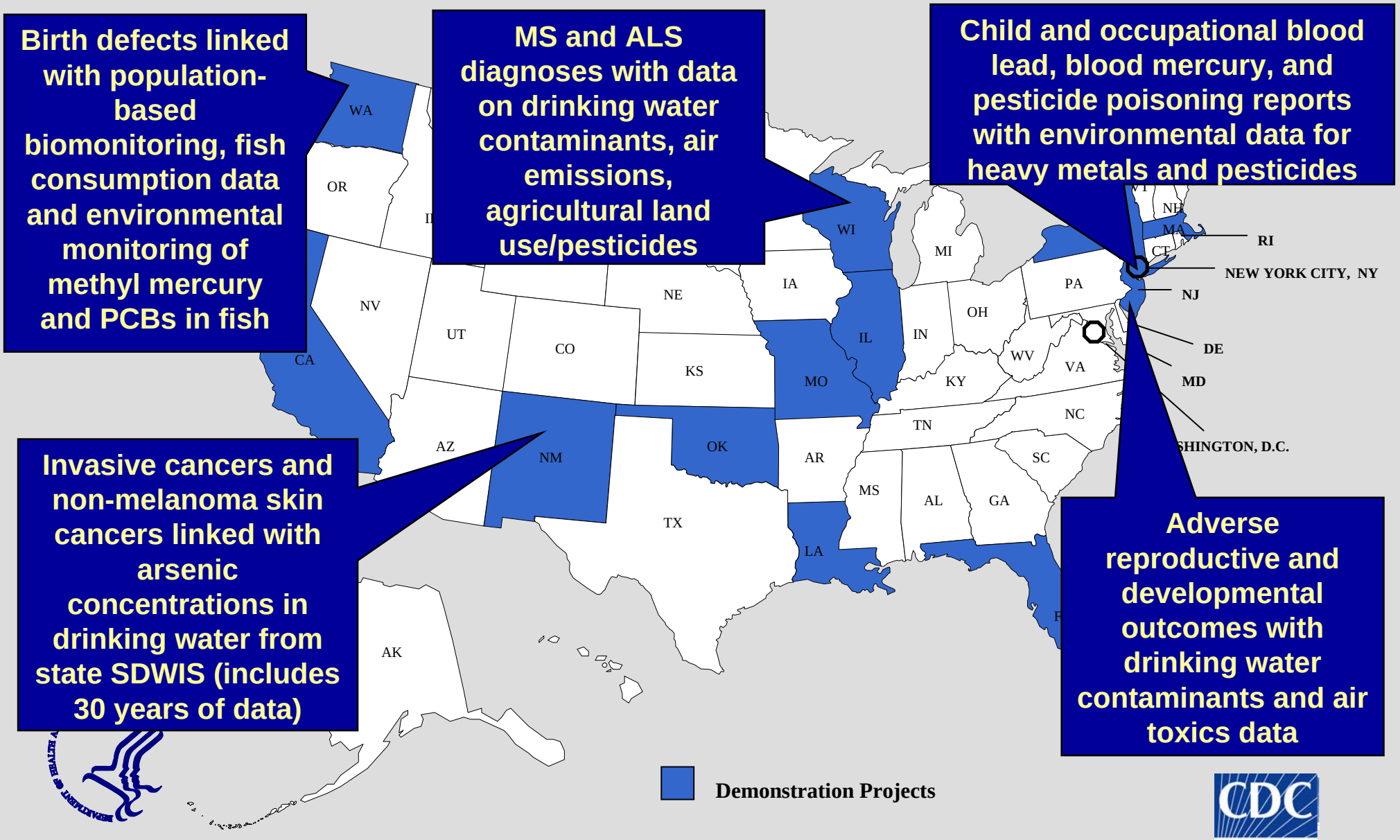
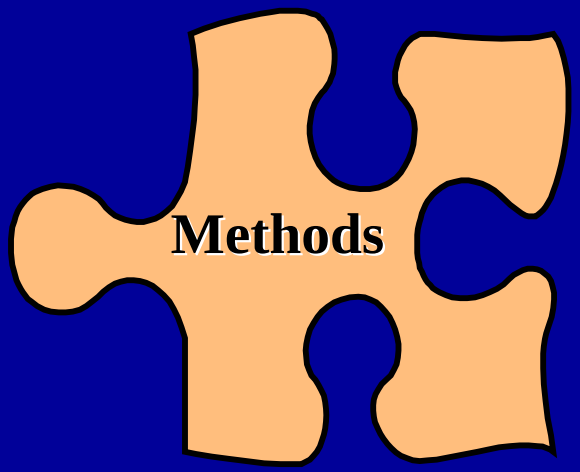
Example of Data Linkage Demonstration Projects



Moving Forward

Creating Tools, Methods, Data, and Capacity for Tracking Through Collaborative Efforts



- **Public Health Air Surveillance Evaluation Project**
  - evaluates alternative methods for generating air quality characterization information that can be ROUTINELY used for EPHT
- **Health and Environmental Linked for Information Exchange, Atlanta**
  - a local network of integrated environmental monitoring and public health data systems
- **Data linkage methods assessment**

Moving Forward

Creating Tools, Methods, Data, and Capacity for Tracking Through Collaborative Efforts (cont'd)

- **Communications tools**
  - EPHT dictionary being developed
  - Brochures and fact sheets available
  - EPHT web-based library ready soon
  - Communications plan development activities underway
- **Outreach activities**
  - Stakeholder meetings (CDC)
  - State/local planning consortiums
  - State/local needs assessments/priorities
  - Outreach plan (under development)

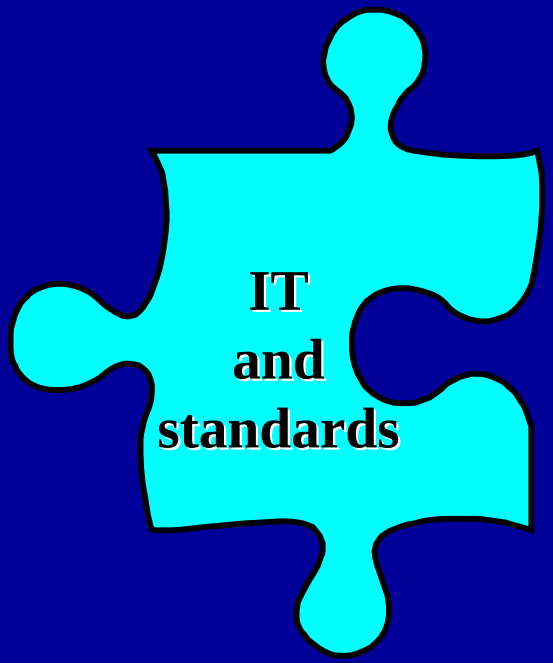
Moving Forward

Creating Tools, Methods, Data, and Capacity for Tracking Through Collaborative Efforts (cont'd)

- Tools for legislative planning and evaluation/data exchange
  - Bill Writers Tool Kit
  - "How to" guide for writing a MOU
  - Guidance for evaluating existing state/local legs/regs
  - Trading Partner Agreement template

Moving Forward

Creating Tools, Methods, Data, and Capacity for Tracking Through Collaborative Efforts (cont'd)



- Created web-based access to major national data systems where data can be directly downloaded from the Internet
- Completed scoping activities – air data; cancer; asthma; birth defects
- Drafted EPHT Network Vision Document
- Conducting New York Data Exchange Project
- Completed metadata standards template

Where Do We Go From Here?

All activities focus on moving into implementation phase in late 2005

For more information: www.cdc.gov/nceh/tracking